# PATENT COOPERATION TREATY

# **PCT**

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| Applicant's or agent's file reference  | FOR FURTHER  |             | see Form PCT/ISA/220   |
|--|--|-------------|--|
| 092  | ACTION   | as well     | as, where applicable, item 5 below.  |
| International application No.  | International filing date (day/month                                       | /year)      | (Earliest) Priority Date (day/month/year)  |
| PCT/JP2005/022506  | 01/12/2005   |             | 02/12/2004   |
| Applicant  |  |             |  |
|  |  |             |  |
| KABUSHIKI KAISHA OHARA   |  |             |  |
| This international search report has been according to Article 18. A copy is being tra | prepared by this International Searc                                       | hing Autho  | ority and is transmitted to the applicant  |
| This international search report consists o  | f a total ofshee   | ts.         |  |
| X It is also accompanied by  | a copy of each prior art document c  | ted in this | report.  |
| Basis of the report  |  |             |  |
| a. With regard to the language, the  |  |             |  |
| ·  | pplication in the language in which i                                      |             |  |
| a translation of the of a translation full   | e international application into<br>nished for the purposes of internation | nal search  | , which is the language<br>n (Rules 12.3(a) and 23.1(b))                                     |
| b. With regard to any <b>nucle</b> c   | otide and/or amino acid sequence   | disclosed   | in the international application, see Box No. I.   |
| 2. Certain claims were four  | nd unsearchable (See Box No. II)   |             |  |
| 3. Unity of invention is lack  | king (see Box No III)  |             |  |
| 4. With regard to the title,   |  |             |  |
| X the text is approved as su   | bmitted by the applicant   |             |  |
| the text has been establish  | ned by this Authority to read as follo                                     | ws:         |  |
|  |  |             |  |
|  |  |             |  |
| •  |  |             |  |
|  |  |             |  |
|  |  |             |  |
|  |  |             |  |
| 5. With regard to the abstract,  |  |             |  |
| X the text is approved as sul  | omitted by the applicant   |             |  |
|  |  |             | y as it appears in Box No. IV. The applicant<br>ch report, submit comments to this Authority |
| 6. With regard to the <b>drawings</b> ,  |  |             |  |
| a. the figure of the <b>drawings</b> to be pe  | ublished with the abstract is Figure I                                     | 10          |  |
| as suggested by the  | ne applicant   |             |  |
| as selected by this  | Authority, because the applicant fa  | led to sug  | gest a figure  |
|  | Authority, because this figure bette                                       | r characte  | rizes the invention  |
| b. X none of the figures is to be  | published with the abstract  |             |  |

## INTERNATIONAL SEARCH REPORT

International application No PCT/JP2005/022506

a. classification of subject matter INV. H01M10/36

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) HO1M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

| C. DOCUM  | ENTS CONSIDERED TO BE RELEVANT  |                         |
|-----------|---|-------------------------|
| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.   |
| Х         | EP 1 424 743 A (KABUSHIKI KAISHA OHARA)<br>2 June 2004 (2004-06-02)<br>paragraphs [0015], [0017], [0020] -<br>[0028]; example 3 | 1-9,<br>12-17,<br>20,21 |
| X         | US 2003/224244 A1 (INDA YASUSHI ET AL) 4 December 2003 (2003-12-04) paragraph [0022]; figure 1; examples 1,Comp.1               | 1-3,6,8,<br>9,12,13     |
|           | -/  | -                       |
|           |   |                         |
|           |   |                         |
|           | •••   |                         |
|           |   |                         |
|           | F1  |                         |

| X Further documents are listed in the continuation of Box C.  | X See patent family annex.  |
|---|---|
| <ul> <li>Special categories of cited documents:</li> <li>"A" document defining the general state of the art which is not considered to be of particular relevance</li> <li>"E" earlier document but published on or after the international filing date</li> <li>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</li> <li>"O" document referring to an oral disclosure, use, exhibition or other means</li> <li>"P" document published prior to the international filing date but later than the priority date claimed</li> </ul> | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  "&" document member of the same patent family |
| Date of the actual completion of the international search   | Date of mailing of the international search report  |
| 15 May 2006   | 29/05/2006  |
| Name and mailing address of the ISA/  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31–70) 340–2040, Tx. 31 651 epo nl,  Eav. (+31–70) 340–3016   | Authorized officer Fitzpatrick, J   |

### INTERNATIONAL SEARCH REPORT

International application No
PCT/JP2005/022506

|                      |   | PCT/JP2005/022506     |
|----------------------|---|-----------------------|
| Continua<br>itegory* | ation). DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
| (                    | DATABASE WPI Section Ch, Week 200354 Derwent Publications Ltd., London, GB; Class L03, AN 2002-522770 XP002380992 -& JP 03 433173 B2 (NIPPON GAKUJUTSU SHINKOKAI) 4 August 2003 (2003-08-04) abstract | 1-3,8,12              |
|                      | US 6 165 646 A (TAKADA ET AL) 26 December 2000 (2000-12-26) column 25, line 65 - column 26, line 3 column 1, lines 9-12   | 1-3,12                |
|                      | US 2003/142466 A1 (YAMADA MASAYUKI ET AL) 31 July 2003 (2003-07-31) paragraphs [0026], [0032]   | 1-8,<br>12-17,21      |
|                      | US 2004/081891 A1 (YAMAGUCHI AKIRA ET AL) 29 April 2004 (2004-04-29) paragraphs [0040], [0041]  | 1-8,<br>12-17,21      |
|                      | .c., ,  |                       |
|                      |   |                       |
|                      |   |                       |

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/JP2005/022506

| Patent document cited in search report |    | Publication date |                      | Patent family<br>member(s)                               | Publication date                                     |
|--|----|------------------|----------------------|--|--|
| EP 1424743                             | A  | 02-06-2004       | CA<br>CN<br>JP<br>US | 2451181 A1<br>1505198 A<br>2004185862 A<br>2004106046 A1 | 29-05-2004<br>16-06-2004<br>02-07-2004<br>03-06-2004 |
| US 2003224244                          | A1 | 04-12-2003       | CN<br>EP<br>JP       | 1463051 A<br>1372208 A2<br>2003346901 A                  | 24-12-2003<br>17-12-2003<br>05-12-2003               |
| JP 3433173                             | B2 | 04-08-2003       | JP                   | 2002109955 A   | 12-04-2002   |
| US 6165646                             | Α  | 26-12-2000       | US                   | 6352796 B1   | 05-03-2002   |
| US 2003142466                          | A1 | 31-07-2003       | AU<br>CN<br>DE<br>WO | 9026801 A<br>1432201 A<br>10196256 TO<br>0227825 A1      | 08-04-2002<br>23-07-2003<br>21-08-2003<br>04-04-2002 |
| US 2004081891                          | A1 | 29-04-2004       | CN<br>WO<br>JP       | 1618141 A<br>03056653 A1<br>2003197259 A                 | 18-05-2005<br>10-07-2003<br>11-07-2003               |